

REMARKS

Claims 1 through 28 stand rejected as not satisfying the “adequate description” of 35 U.S.C. § 112, first paragraph. In particular, it is alleged that the limitation in the independent claims that the filter material is spirally wound “with generally complete overlap between adjacent layers such that edges of said layers are generally aligned in a common plane” is not supported by the disclosure as originally filed and thus constitutes new matter. The Examiner asserts that the drawings do not support the limitation because “drawing figures are not necessarily drawn to scale” and “Fig. 3 of the drawings appears to show outer layers of filtering material with edges that are at a higher level than edges of inner layers of filtering material.” This rejection is respectfully traversed.

Applicants acknowledge that the precise words “with generally complete overlap between adjacent layers such that edges of said layers are generally aligned in a common plane” are not expressly set forth in the written description. However, it is well settled law that drawings of a utility patent alone may satisfy the description requirements set forth in 35 U.S.C. § 112. The Examiner’s attention is drawn to the case of Vas-Cath Inc. v. Mahurkar, 19 USPQ2d 1111, 1118 (Fed. Cir. 1991). Reference is also made to the case of In re Heinle, 145 USPQ 131 (CCPA 1965) wherein the Court reversed a PTO rejection of the applicant’s claims, the rejection holding that the claim limitation calling for apertures in a core to be “approximately one-fourth of the circumference of said core” was not supported in the written description. The Court found that the drawings alone supported the limitation and that the limitation was thus not “new matter.”

In the present application, the filtration material is consistently described in the specification as being spirally wound. The sole illustrated embodiment of the “spiral wound” configuration is set forth in Figs. 1 through 3. It is absolutely clear from these figures that the filtration media is spirally wound such that the adjacent layers of the filtration media completely overlap and that the edges of the layers are generally aligned in a common plane. The assertion that Fig. 3 shows outer layers with edges at higher level is not well founded. The illustration of Fig. 3 is a perspective illustration where the unit is tilted from the plane of the paper towards the viewer such that the viewer can see at least partially into the top of the core with this view, the outer layers are “higher” to give the proper perspective. If the perspective view were rotated towards the plane of the paper so as to present a straight-on front view, the top circumferential edges of all of the layers would obviously be aligned in a single plane.

The fact that patent drawing figures may or may not be necessarily drawn to scale is not particularly relevant. The limitation does not relate to the relative size or dimensions of one component with respect to another component, but simply that the edges of all of the components lie in a common plane. The “common plane limitation” is clearly supported by the drawings. Also, it should be noted that the claim limitation does not call for exact overlap and alignment between the filtration media layers, but allows for some degree of “general” tolerance resulting inherently from material differences and fabrication processes. This type of “general” or “approximation” language was also significant to the Court in In re Heinle cited above.

Accordingly, applicants respectfully submit that those skilled in the art would certainly understand that the inventors were in possession of the invention as set forth

in the amended claims, particularly the objected to limitations, at the time the application was filed. In fact, this is the only illustrated embodiment of the invention. It is respectfully requested that the rejection to the claims under 35 U.S.C. § 112, first paragraph, be withdrawn.

Claims 1, 2, 5-8, 10-14, 17-20, 22-24, and 26-28 were again rejected under § 102(b) as anticipated by Degen '446. The Examiner asserts that once the filter tube according to Degen '446 is cut, the edges of the filtration media will be in the same plane as required by the amended claims, referring particularly to example 1 of Degen '446. This is not possible. Referring to the examples set forth in column 8 of Degen '446, it is expressly described that a cylindrical tube having a length of 4 1/2 feet is helically wrapped with filter median sheets such that a 50 percent overlap exists between the sheets. Portions of the media sheets extending beyond the ends of the tubes were then cut with a hot knife. If the wraps are helical with a 50 percent overlap as expressly described in the example, it is impossible for the filter media wraps to be spirally wound with complete (100%) overlap between adjacent layers such that the edges of all of the layers lie in a common plane, regardless of how the tube or edges extending beyond the tube are cut. The media wrapped along the length of the tube will still be spirally wound with 50 percent overlap. A wound configuration that is helical with 50 percent overlap cannot possibly satisfy the respective claim limitations.

It is respectfully requested that the rejection under § 102(b) based on Degen '446 be withdrawn.

Claims 1, 8, 11, 13, 20, 22-24, and 26-28 stand rejected under § 102(e) as anticipated by Pulek '200, particularly Fig. 2 of the reference.

Independent claims 1, 13, and 24 have been amended to more distinctly define the “complete overlap” relationship of the filtration media. In particular, the claims are amended to point out that the adjacent layers are in contact with each other. In other words, the layers are spirally wound onto each other, as clearly seen in, for example, Fig. 3. The claimed wrapping configuration is fundamentally different from that disclosed in Pulek '200.

Referring to Pulek '200, particularly Figs. 3-9, it can be seen that the filtration media consists of individual sheets 16a -16c that are disposed transversely across a diffusion medium 20. The diffusion medium 20 is formed by spaced apart parallel strands of material 26 and 30 to define longitudinal passages 28, 32. The combined diffusion medium 20 and filter medium 16 are then rolled around the core to produce the configuration as shown in Figs. 2 and 9. It can be seen from Figs. 2 and 9, that the layers of filtration medium 16 are not in contact with each other, but are separated by layers of the diffusion medium 20. The diffusion medium 20 is a critical and essential component of the filter according to Pulek '200. One skilled in the art would not be motivated in any way to redesign the filter of Pulek '200 to eliminate the diffusion medium 20, particularly because the alternating layers of diffusion medium 20 and filtration medium 16 are critically important to the proposed invention of the '200 patent.

Accordingly, applicants respectfully submit that independent claims 1, 13, and 24 patentably distinguish over Pulek '200.

Claims 1, 2, 5-8, 10-14, 17-20, 22-24, and 26-28 stand rejected under 35 U.S.C. 103(a) as unpatentable over the combination of Degen '446 and Pulek '200. This rejection is premised on the assertion that it would have been obvious to one of ordinary

skill in the art to wrap the filter media of Degen '446 in view of Pulek '200. Applicants respectfully submit that such a combination would not be made by one of ordinary skill in the art when considering the references in their entirety.

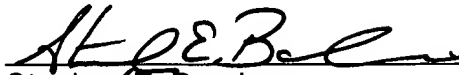
The helical wrapping configuration of Degen '446 is critical to the filter element. As described throughout Degen '446, the purpose of the filtration device is to provide a tapered porosity gradient in the direction of fluid flow by providing generally decreasing pore ratings in the filtration medium in the direction of fluid flow. To accomplish this, Degen '446 expressly describes that the filtration media is helically wrapped around the core material. The degree of overlap is within the preferred range of 25% to 75%. The helical wrapping configuration of the filtration media is the most important feature of Degen '446. One skilled in the art would not destroy the primary feature of Degen '446 (the helical wrapping configuration) in view of Pulek '200. An obviousness rejection based on a combination of references is not proper when the intent and purpose of the primary reference is essentially destroyed by the combination. Accordingly, applicants respectfully submit that the claims patentably distinguish over the combination of Degen '446 and Pulek '200.

For the reasons set forth herein, applicants respectfully submit that the independent claims 1, 13, and 24 patentably distinguish over all of the applied references and are thus allowable. The respective dependent claims only further patentably distinguish the independent claims and are allowable for at least the reasons the independent claims are allowable. With the present amendment, applicants submit that the application is in condition for allowance and favorable action thereon is

respectfully requested. The Examiner is encouraged to contact the undersigned at his convenience to resolve any remaining issues.

Respectfully submitted,

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